

# **Harvesting Prey while Protecting an Endangered Predator in a General Equilibrium Ecosystem Model<sup>1</sup>**

## **Abstract**

Endangered species are in predator/prey, mutualistic, competitive, or other types of relationships with many other species that share their habitat. Understanding these ecological relationships is an important part of designing endangered species policies. We employ a general equilibrium model of an ecological community containing a human harvested species that is preyed on by an endangered species subject to a recovery plan. The model is applied to an Alaskan marine ecosystem in which pollock are harvested and Steller sea lions are endangered, and both interact with six other species. Results indicate the impact harvesting has on the endangered sea lions.

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